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| 09/731,681      | 12/06/2000  | W. Lynn Benson       | T7082.CIP           | 9307             |

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EXAMINER

MCKANE, ELIZABETH L

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1744

DATE MAILED: 07/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/731,681

Applicant(s)

BENSON, W. LYNN

Examiner

Leigh McKane

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-20 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 12 is/are rejected.
- 7) ☒ Claim(s) 5-11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In line 2, "the air pump" lacks positive antecedent basis, as no air pump has been recited in claim 1, from which claim 12 depends.

For purposes of the following art rejection claim 12 has been treated as if it depends from claim 5, which recited an air pump. Correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Placzek (U.S. Patent No. 5,119,994).

Placzek teaches a system for treatment of infectious waste, including an impactor 75,76,78 having a plurality of impact surfaces which break open the infectious waste bags by impact, and a rotating, pressurizable drum **D** having an interior adapted to mix the waste with

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treatment fluid (water and steam) and to hold the waste and fluid at superatmospheric pressure, the drum having an end 50 for both receiving and discharging waste.

*Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1, 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mason (U.S. Patent no. 5,387,350) in view of Berndt (U.S. Patent No. 5,520,888) and Placzek.

Mason teaches an apparatus for disinfecting infectious wastes wherein the wastes are pulverized in a shredder 27 and then conveyed to a mixing vessel 29, which mixes the pulverized waste with a treatment fluid (aqueous chlorine-containing solution) at superatmospheric pressure. See col.2, lines 56-60 and col.6, lines 36-59. Mason is silent as to whether the shredder includes a plurality of impact surfaces and to a particular type of mixing vessel.

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Berndt discloses a system for treating infectious wastes wherein at least one shredder/grinder reduces size of the waste for treatment. The shredder/grinder is one that employs a rotor and impactor target plates. See col.6, lines 26-33 and lines 50-53. As Berndt teaches that these types of shredders are "readily available in the art," they would have been a clear and obvious choice for the shredder of Mason.

Placzek teaches a pressurized, rotating vessel for mixing an infectious waste with a treatment fluid under pressure. See col.2, lines 35-46. The vessel **D** of Placzek has an end **50** for both receiving and discharging waste. It would have been obvious to one of ordinary skill in the art to employ the rotating treatment vessel of Placzek as the mixing vessel of Mason, as Placzek discloses that the helical flighting **80** and lifting paddles **70** achieve a high degree of contact and mixing between the waste and treatment fluid and are further effective in reducing the size of the waste.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mason, Berndt, and Placzek as applied to claim 1 above, and further in view of Devine et al.

Mason teaches treating the wastes with a chlorine-containing compound, such as alkaline earth metal chlorites to produce hypochlorous acid, but does not specifically teach sodium hypochlorite. Devine et al discloses an apparatus for treating infectious wastes wherein the waste is treated with sodium hypochlorite as a precursor to hypochlorous acid. See col.2, lines 30-34. As sodium is a well-known alkaline earth metal, it would have been an obvious choice for the chlorite of Mason.

*Allowable Subject Matter*

9. Claims 5-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claim 12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

11. Claims 13-20 are allowed.

12. The following is a statement of reasons for the indication of allowable subject matter: Although Mason teaches employing "some type of mechanical means such as a pump to put pressure on the contact chamber" (col.3, lines 13-15), there is no teaching or suggesting to draw air through the impactor to the mixing drum. In fact, in col.6, lines 21-24, Mason discloses "a pump, could be used at, 17, to put pressure on the influent line or the contact chamber. Thus, it would seem that Mason teaches increasing the pressure only on the mixing drum for purposes of improving contact between the treatment fluid and waste and would not have any motivation to draw air through the impactor.

*Conclusion*

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Vanderwal teaches an apparatus for processing infectious wastes.

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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leigh McKane whose telephone number is 703-305-3387. The examiner can normally be reached on Monday-Wednesday (7:15 am-4:45 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Warden can be reached on 703-308-2920. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

*Leigh McKane*  
**Leigh McKane**  
**Primary Examiner**  
**Art Unit 1744**

elm  
July 14, 2003